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Cat. No. 42-2023

OWNER'S MANUAL

Please read before using this equipment.

LAB-1100

Fully Automatic Belt-Drive Turntable

OPTIMUS®

FEATURES

Your Optimus LAB-1100 Fully Automatic Belt-Drive Turntable is a high quality stereo turntable with sensitive pickup and a built-in preamp that deliver great sound from your records.

Your turntable's features include:

Belt-Drive System — reduces turntable noise by absorbing even the slightest motor vibration.

DC Motor — keeps wow at a minimum by providing a stable, controlled speed.

Stereo Preamplifier — lets you connect the turntable to the LINE IN inputs on a receiver/amplifier (or stereo audio mixer) which does not have low-level phono inputs.

Quick Stop — lets you quickly stop play with the press of a button.

33 1/3 or 45 RPM Speed Selector — lets you play records made at either speed.

Cue — lets you raise and lower the tone arm without touching it, so you do not damage the stylus or your records.

We recommend you record the turntable's serial number here. The serial number is on the turntable's rear panel.

Serial Number: _____

THE FCC WANTS YOU TO KNOW

Your turntable might cause TV or radio interference even when it is operating properly. To determine whether your turntable is causing the interference, disconnect your turntable. If the interference goes away, your turntable is causing it. Try to eliminate the interference by:

- Moving your turntable away from the receiver
- Connecting your turntable to an outlet that is on a different electrical circuit from the receiver
- Contacting your local RadioShack store for help

If you cannot eliminate the interference, the FCC requires that you stop using your turntable.

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WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.

This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

PREPARATION

UNPACKING THE TURNTABLE

When you remove the turntable assembly with its attached dust cover from the box, be sure to also remove the supplied rubber mat and 45 RPM adapter before you store the packing material.

ASSEMBLING THE TURNTABLE

Note: The LIN (lead in), RET (auto return), and SW (tone arm switch) screws on the bottom of the turntable are set at the factory and should not be adjusted.

1. Open the dust cover.
2. Rotate the turntable's platter until one of the platter's two larger holes is above the drive motor spindle on the turntable's upper left side.

illustration from original o/m p. 4 left column

3. Remove the tape and two ribbons from the rubber drive belt. Be sure the belt is not twisted.
4. Using your fingers, center the belt on the drive motor's spindle (against the lower rim) so the belt is securely seated around the spindle.

WRONG **RIGHT**

5. Plug the turntable's power cord into a standard AC outlet.

   Caution: To prevent electric shock, the plug's blades are polarized and fit only one way. If the plug does not fit easily, turn it over and try again. Do not force the plug into the AC outlet.
6. Remove the wire tie from the tone arm, then press **CUE** to raise the tone arm.
7. Press **PLAY** and let the motor rotate the turntable six or seven times, then press **STOP** and check the location of the belt on the spindle.

illustration like p. 8 w/o arrow

   If the belt is not securely seated around the spindle, reposition it properly and repeat Step 6.

   Note: If the belt slips off the spindle, do not attempt to remove the platter. Take it to your local RadioShack store for assistance.
8. Unplug the turntable's power cord from the AC outlet.

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CONNECTING THE TURNTABLE TO YOUR RECEIVER/AMPLIFIER

You can connect your LAB-1100 to a receiver/amplifier (or stereo audio mixer) that has low-level phono inputs (such as left and right PHONO jacks) or line-level inputs (such as left and right AUX, TV, TAPE, or CD jacks).

Note: If you are not sure which type of input your receiver/amplifier has, check your receiver's/amplifier's owner's manual.

Cautions:

- Be sure to follow all the installation instructions described in the enclosed "Important Safety Instructions."
- Do not connect the turntable to AC power until you complete all other connections.
- Do not place the turntable on top of the receiver/amplifier or on any other component that gets hot.
- To avoid possible damage to your receiver/amplifier, turn it off before making the connections.

1. With the receiver/amplifier off, plug the turntable's white (left) and red (right) plugs into the appropriate jacks on your receiver/amplifier.

   - To connect the turntable to a low-level phono input, plug the white and red plugs into the receiver's/amplifier's left and right PHONO jacks. Then set **LINE OUT ON/ PHONO OUT OFF** to **PHONO OUT OFF**.

   illustration

   - To connect the turntable to a line-level input, plug the white and red plugs into the receiver's/amplifier's left and right **AUX**, **TV**, **TAPE**, or **CD** jacks. Then set **LINE OUT ON/PHONO OUT OFF** to **LINE OUT ON**.

   illustration

2. Connect the turntable's ground wire to the amplifier's/receiver's GND or earth terminal to avoid hum.

3. Place the rubber mat, ridged side down, on top of the platter.

illustration

CONNECTING POWER

Once you have connected the turntable to your receiver/amplifier, plug the turntable's power cord into a switched or unswitched AC outlet on your receiver/amplifier or into a standard AC outlet.

illustration

Caution: To prevent electric shock, the plug's blades are polarized and fit only one way. If the plug does not fit easily, turn it over and try again. Do not force the plug into the AC outlet.

OPERATION

Note: Make sure you have set **LINE OUT ON/PHONO OUT OFF** for the type of sound system you have before operating the turntable.

1. Open the dust cover.
2. Remove the stylus cover.

illustration

3. If you are playing a 33$^{1}/_{3}$ RPM record, place it directly over the spindle.

   If you are playing a 45 RPM record, place the supplied 45 RPM adapter over the turntable spindle, then place the record over the adapter.

illustration

4. Set the **6"/12"** selector according to the record's diameter. Then close the dust cover.

illustration

5. Press **SPEED** in or out to set the turntable's speed (33$^{1}/_{3}$ or 45 RPM).

illustration

6. Press **PLAY**. The turntable starts to rotate and the tone arm moves to the beginning of the record, lowers to the record, then starts to play.

illustration

7. At the end of the record, the tone arm automatically returns to the tone arm rest and the turntable stops. To stop playing the record sooner, press **STOP**.

illustration

Notes:

- If the tone arm does not automatically return when it reaches the end of the record, press **STOP** to reset the mechanism.
- To protect the stylus from damage, we recommend you replace the stylus cover when you are not using the turntable.

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USING THE CUE BUTTON

The cue button raises the tone arm so you can safely move it to a specific section of the record without worrying about accidentally scratching it with the stylus.

1. Press **CUE** to raise the tone arm.

illustration

2. Push the tone arm to a spot directly over the desired part of the record. The turntable starts to rotate.
3. Press **CUE** again. The tone arm slowly lowers and the record plays.

   Note: You can also use **CUE** to lift the tone arm anytime during play.

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TROUBLESHOOTING

If your turntable is not working as it should, these suggestions might help you solve the problem. If the turntable still does not operate properly, take it to your local RadioShack store for assistance.

Symptom	Possible Cause	Suggestion
Turntable does not work when plugged into an AC outlet	Connected receiver/ amplifier not turned on.	Turn on receiver/ amplifier.
	Rubber drive belt slipped, broken, or not mounted properly.	Check rubber drive belt.
	Power problem.	Check the power cord and AC outlet.
No sound	Receiver/amplifier volume set to minimum.	Adjust receiver/amplifier volume.
	Turntable not connected correctly to receiver/amplifier.	Recheck connections.
	LINE OUT ON/PHONO OUT OFF is set to **PHONO OUT OFF** and turntable is connected to receiver's/amplifier's line-level input jacks.	Set **LINE OUT ON/PHONO OUT OFF** to **LINE OUT ON**.
	Stylus needs replacing.	Replace the stylus (See "Cleaning/Replacing the Stylus" on Page 13).

Symptom	Possible Cause	Suggestion
Sound from turntable not clear or scratchy during play	Record is dirty.	Clean the record.
	Stylus is dirty.	Clean the stylus with a soft brush (See “Cleaning/ Replacing the Stylus” on Page 13).
	Stylus is improperly installed.	Check the stylus and reinstall it if necessary.
	Stylus is worn.	Replace the stylus.
	LINE OUT ON/PHONO OUT OFF is set to **LINE OUT ON** and turntable is connected to receiver’s/amplifier’s low-level phono input jacks.	Set **LINE OUT ON/PHONO OUT OFF** to **PHONO OUT OFF**.
Hum from turntable during play	Stylus is improperly installed.	Check the stylus and reinstall it if necessary.
	Turntable is picking up induction hum from other components.	Check ground terminal and reposition the turntable away from other components.
	LINE OUT ON/PHONO OUT OFF is set to **LINE OUT ON** and turntable is connected to receiver’s/amplifier’s low-level phono input jacks.	Set **LINE OUT ON/PHONO OUT OFF** to **PHONO OUT OFF**.
Feedback or howling sound from turntable during play	Turntable is picking up sound pressure of vibrations from speakers.	Reposition the turntable away from speakers.

CARE AND MAINTENANCE

Your Optimus LAB-1100 Fully Automatic Belt-Drive Turntable is an example of superior design and craftsmanship. The following suggestions will help you care for your turntable so you can enjoy it for years.

Keep the turntable dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.

Handle the turntable gently and carefully. Dropping it can damage circuit boards and cases and can cause the turntable to work improperly.

Use and store the turntable only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.

Keep the turntable away from dust and dirt, which can cause premature wear of parts.

Wipe the turntable with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the turntable.

Modifying or tampering with the turntable's internal components can cause a malfunction and might invalidate your warranty and void your FCC authorization to operate it. If your turntable is not performing as it should, take it to your local RadioShack store for assistance.

RECORD CARE

- Always hold your records by the edges. Touching the grooved surface can leave fingerprints that can collect dust and dirt.
- Always return your records to their jackets immediately after use. This helps protect them from dust and scratches.
- Store your records in a vertical position and protect them from extreme temperatures, moisture, and direct sunlight.

CLEANING/REPLACING THE STYLUS

A dirty or worn stylus causes rough, distorted sound and could damage your records.

Caution: Do not touch the stylus while cleaning or installing it.

If the stylus gets dirty or dusty, use a soft brush to gently clean it.

illustration
DON'T SHOW STYLUS REMOVAL; CAN BE CLEANED IN PLACE

If the stylus is worn, follow these steps to replace it. You can order a replacement stylus assembly AT3600LAX (RSU No. 12039012) through your local RadioShack store.

1. Turn your receiver/amplifier off.
2. Remove the stylus assembly from the cartridge by gently grasping its sides and pulling it down.

illustration

3. Insert a new stylus assembly and gently snap it into place.

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SPECIFICATIONS

Turntable Platter

Type ..... Plastic

Outer Diameter ..... $11^{13}/_{16}$ Inches (300 mm)

Drive System ..... Belt Drive

Motor Type ..... DC Motor

Turntable Type ..... Automatic Return

Rotation Speeds ..... 2-Speed ($33^{1}/_{3}$ and 45 RPM)

Tone Arm

Type ..... Dynamic Balance

Effective Length ..... $^{11}/_{16}$ Inches (195 mm)

Overhang ..... $^{9}/_{16}$ Inch (15 mm)

Tracking Error ..... Less Than 4°

Cartridge

Output Voltage:

2.5 mv at 1 kHz (with **LINE OUT ON/PHONO OUT OFF** set to **PHONO OUT OFF**)

450 mv at 1 kHz (with **LINE OUT ON/PHONO OUT OFF** set to **LINE OUT ON**)

Frequency Response ..... 20–20,000 Hz

Channel Separation (1 kHz) ..... More Than 15 dB

Load Resistance : 47 kohm (with **LINE OUT ON/PHONO OUT OFF** set to **PHONO OUT OFF**)

Tracking Force ..... 3.5 ±1.0 Gram

Stylus

Tip ..... Diamond Stylus

Replacement ..... AT3600LAX (RSU No. 12039012)

General

Signal-to-Noise Ratio (DIN-B) ..... > 50 dB

Wow and Flutter (JIS WARMS) at 3 kHz ..... < 0.25%

Power Source ..... AC 120 Volts 60 Hz

Power Consumption ..... 3 Watts

Dimensions (HWD) ..... $3^{13}/_{16} \times 14^{1}/_{4} \times 13^{15}/_{16}$ Inches ($98 \times 360 \times 349$ mm)

Weight ..... 5 lbs 4 oz (2.38 kgs)

Included Accessory ..... 45 RPM Adapter

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

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Limited One-Year Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, Dept. W, 100 Throckmorton St., Suite 600, Fort Worth, TX 76102

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Printed in China